



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Phuong V. Luu et al.

Examiner:

UNKNOWN

U.S. Serial No. 10/702,414

Group Art Unit: 1731

Filed November 6, 2003

Docket No. 2376 (GP-01-24)

For:

ABSORBENT SHEET EXHIBITING

RESISTANCE TO MOISTURE

PENETRATION

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. 1.56, 1.97 AND 1.98

Sir:

Applicants submit herewith patents, publications, and other information of which they are aware, which they believe may be material, as defined in 37 C.F.R. 1.56(b), to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 C.F.R. 1.56(a). While information referred to in this Information Disclosure Statement may be material pursuant to 37 C.F.R. 1.56(b), the filing of this Information Disclosure Statement is not intended to, pursuant to 37 C.F.R. 1.97(h), constitute an admission that any patent, publication or other information referred to is, or is considered to be, material to the patentability of this invention. Pursuant to 37 C.F.R. 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information exists.

(a) This information Disclosure Statement is filed within the period set forth in §1.97(b) because it accompanies the new patent application submitted herewith, is filed within three months of the filing date of a national application or within three months of the date of entry of the national stage as set forth in §1.491 in an international application. Or is believed to be filed before the mailing date of a first Office Action on the merits, whichever event occurs last. However, in the event that the first office action has been mailed, the Commissioner is authorized to charge any fees under 37 C.F.R. 1.17(p) or credit any overpayment to Account No. 50-0935.

This Information Disclosure Statement is filed after the period set forth in 37 C.F.R. 1.97(b), but is believed to be filed before the mailing date of a final action under §1.311, whichever occurs first.

- ☐ (1) The undersigned attorney certifies that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement;
- □ (2) The undersigned attorney certifies that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned attorney after making reasonable inquiry, was known to any individual designated in §1.56 (c) more than three months prior to the filing of this statement; or
- ☐ (3) This Information Disclosure Statement is accompanied by a transmittal letter in which payment of the fee set forth in §1.17(p) and required by 37 C.F.R. 1.97 (c) is authorized.

U.S. Patents

- 1. United States Patent No. 1,682,346, issued August 28, 1928, entitled "Paper Fabric", of *Lorenz*;
- 2. United States Patent No. 3,432,936, issued March 18, 1969, entitled "Transpiration Drying and Embossing of Wet Paper Webs", of *Cole et al.*;
- 3. United States Patent No. 3,546,716, issued December 15, 1970, entitled "Disposable Bedpan Liner", of *Laumann*;
- 4. United States Patent No. 3,607,348, issued September 21, 1971, entitled "Twice-Coated Cellulosic-Fiber Structure and Its Manufacture", of *Wray et al.*;
- 5. United States Patent No. 3,612,054, issued October 12, 1971, entitled "Sanitary Napkin", of *Matsuda et al.*;
- 6. United States Patent No. 3,654,064, issued April 4, 1972, entitled "Water-Distintegratable Sheet Material", of *Laumann*;
- 7. United States Patent No. 3,994,771, issued November 30, 1972, entitled "Process for Forming a Layered Paper Web Having Improved Bulk, Tactile Impression and Absorbency and Paper Thereof", of *Morgan et al.*;
- 8. United States Patent No. 4,102,737, issued July 25, 1978, entitled "Process and Apparatus for Forming a Paper Web Having Improved Bulk and Absorptive Capacity", of *Morton*;
- 9. United States Patent No. 4,117,199, issued September 26, 1978, entitled "Process for Producing Moisture and Water-Proof Paper", of *Gotoh et al.*;
- 10. United States Patent No. 4,349,610, issued September 14, 1982, entitled "Method for Waterproofing Paper", of *Parker*;
- 11. United States Patent No. 4,468,254, issued August 28, 1984, entitled "Wax Emulsion", of *Yokoyama et al.*;
- 12. United States Patent No. 4,529,480, issued July 16, 1985, entitled "Tissue Paper", of *Trokhan*;
- 13. United States Patent No. 4,543,156, issued September 24, 1985, entitled "Method for Manufacture of a Non-Woven Fibrous Web", of *Cheshire et al.*;
- 14. United States Patent No. 4,601,938, issued July 22, 1986, entitled "Article Suitable for Wiping Surfaces", of *Deacon et al.*;

- 15. United States Patent No. 4,786,367, issued November 22, 1988, entitled "Chemically Treated Paper Products Towel and Tissue", of *Bogart et al.*;
- 16. United States Patent No. 4,789,564, issued December 6, 1988, entitled "Hydridoaminosilane Treatment for Rendering Surfaces Water-Repellent", of Kanner et al.;
- 17. United States Patent No. 4,816,320, issued March 28, 1989, entitled "Toilet Tissue and Facial Tissue" of *St. Cyr*;
- 18. United States Patent No. 4,950,545, issued August 21, 1990, entitled "Multifunctional Facial Tissue" of *Walter et al.*:
- 19. United States Patent No. 4,987,632, issued January 29, 1991, entitled "Wiping Article", of *Rowe et al.*;
- 20. United States Patent No. 5,227,242, issued July 13, 1993, entitled "Multifunctional Facial Tissue" of *Walter et al.*;
- 21. United States Patent No. 5,399,366, issued March 21, 1995, entitled "Perforated Package of a Composite Integral Sheet Material", of *Geddes et al.*;
- 22. United States Patent No. 5,431,840, issued July 11, 1995, entitled "Process for the Production of Cleaning and Care Preparations Containing APG Emulsifier", of *Soldanski* et al.;
- 23. United States Patent No. 5,449,551, issued September 12, 1995, entitled "Highly Water Absorbent Fibrous Web and a Process for Producing The Same", of *Taniguchi*;
- 24. United States Patent No. 5,510,002, issued April 23, 1996, entitled "Method for Increasing the Internal Bulk of Wet-Pressed Tissue", of *Hermans et al.*;
- 25. United States Patent No. 5,552,187, issued September 3, 1996, entitled "Coated Fibrous Mat-Faced Gypsum Board", of *Green et al.*;
- 26. United States Patent No. 5,560,945, issued October 1, 1996, entitled "Perforated Package of a Composite Integral Sheet Material", of *Geddes et al.*;
- 27. United States Patent No. 5,585,129, issued December 17, 1996, entitled "Process of Using a Perforated Package of a Composite Integral Material", of Geddes et al.;
- 28. United States Patent No. 5,601,871, issued February 11, 1997, entitled "Soft Treated Uncreped Throughdried Tissue", of Krzysik et al.;
- 29. United States Patent No. 5,609,901, issued March 11, 1997, entitled "Method of Using a Perforated Package", of *Geddes et al.*;

- 30. United States Patent No. 5,614,293, issued March 25, 1997, entitled "Soft Treated Uncreped Throughdried Tissue", of *Krzysik et al.*;
- 31. United States Patent No. 5,650,218, issued July 22, 1997, entitled "Soft Treated Tissue", of *Krzysik et al.*;
- 32. United States Patent No. 5,658,639, issued August 19, 1997, entitled "Method for Selectively Aperturing a Nonwoven Web Exhibiting Surface Energy Gradients", of *Curro et al.*;
- 33. United States Patent No. 5,665,426, issued Septemer 9, 1997, entitled "Soft Treated Tissue", of *Krzysik et al.*;
- 34. United States Patent No. 5,690,788, issued November 25, 1997, entitled "Biaxially Undulatory Tissue and Creping Process Using Undulatory Blade", of *Marinack et al.*;
- 35. United States Patent No. 5,695,487, issued December 9, 1997, entitled "Z-Direction Liquid Transport Medium", of *Cohen et al.*;
- 36. United States Patnet No. 5,716,692, issued February 10, 1998, entitled "Lotioned Tissue Paper", of Warner et al.;
- 37. United States Patent No. 5,792,404, issued August 11, 1998, entitled "Method for Forming a Nonwoven Web Exhibiting Surface Energy Gradients and Increased Caliper", of *Cree et al.*;
- 38. United States Patent No. 5,849,000, issued December 15, 1998, entitled "Absorbent Structure Having Improved Liquid Permeability", of *Anjur et al.*;
- 39. United States Patent No. 5,851,352, issued December 22, 1998, entitled "Soft Multi-Ply Tissue Paper Having a Surface Deposited Strengthening Agent", of *Vinson et al.*;
- 40. United States Patent No. 5,851,353, issued December 22, 1998, entitled "Method for Wet Web Molding and Drying", of *Fiscus et al.*;
- 41. United States Patent No. 5,855,697, issued January 5, 1999, entitled "Magnesium Alloy Having Superior Elevated-Temperature Properties and Die Castability", of *Luo et al.*;
- 42. United States Patent No. 5,858,173, issued January 12, 1999, entitled "Paper Making Process", of *Propst, Jr.*;
- 43. United States Patent No. 5,865,955, issued February 2, 1999, entitled "Method and Device for Enhancing the Run of a Paper Web in a Paper Maching", of *Ilvespää et al.*;
- 44. United States Patent No. 5,891,309, issued April 6, 1999, entitled "Web Stabilizing Device", of *Page et al.*;

- 45. United States Patent No. 5,932,316, issued August 3, 1999, entitled "Method for Forming a Nonwoven Web Exhibiting Surface Energy Gradients and Increased Caliper", of *Cree et al.*;
- 46. United States Patent No. 5,968,590, issued October 19, 1999, entitled "Method for Drying a Surface-Treated Paper Web in an After-Dryer of a Paper Machine and After-Dryer of a Paper Machine", of Ahonen et al.;
- 47. United States Patent No. 6,001,421, issued December 14, 1999, entitled "Method for Drying Paper and a Dry End of a Paper Machine", of *Ahonen et al.*;
- 48. United States Patent No. 6,015,935, issued January 18, 2000, entitled "Absorbent Articles Comprising a Material Having a High Vertical Wicking Capacity", of *LaVon et al.*;
- 49. United States Patent No. 6,025,049, issued February 15, 2000, entitled "Fluid Transport Webs Exhibiting Surface Energy Gradients", of *Ouellette et al.*;
- 50. United States Patent No. 6,027,611, issued February 22, 2000, entitled "Facial Tissue With Reduced Moisture Penetration", of *McFarland et al.*;
- 51. United States Patent No. 6,033,736, issued March 7, 2000, entitled "Aqueous Wax Emulsion as Paint Primer and Paint Repair Adhesive", of *Perlman et al.*;
- 52. United States Patent No. 6,046,378, issued April 4, 2000, entitled "Wettable Article", of *Quincy, III et al.*;
- 53. United States Patent No. 6,054,020, issued April 25, 2000, entitled "Soft Absorbent Tissue Products Having Delayed Moisture Penetration", of *Goulet et al.*;
- 54. United States Patent No. 6,066,379, issued May 23, 2000, entitled "Repulpable, Water Repellant Paperboard", of *Ma et al.*;
- 55. United States Patent No. 6,074,525, issued June 13, 2000, entitled "Process for Increasing Bulk of Foreshortened Fibrous Web", of *Richards*;
- 56. United States Patent No. 6,107,539, issued August 22, 2000, entitled Disposable Absorbent Articles Having Reduced Surface Wetness", of *Palumbo et al.*;
- 57. United States Patent No. 6,119,362, issued September 19, 2000, entitled "Arrangements for Impingement Drying and/or Through-Drying of a Paper or Material Web", of *Sundqvist*;
- 58. United States Patent No. 6,180,052, issued January 30, 2001, entitled "Fluid Transport Webs Exhibiting Surface Energy Gradients", of *Ouellette et al.*:

- 59. United States Patent No. 6,187,695, issued February 13, 2001, entitled "Cool Feeling Tissue Product and Method", of *Krzysik et al.*;
- 60. United States Patent No. 6,231,948, issued May 15, 2001, entitled "Fluid Transport Webs Exhibiting Surface Energy Gradients", of *Ouellette et al.*;
- 61. United States Patent No. 6,232,521, issued May 15, 2001, entitled "Absorbent Articles Having Fluid Contact Angle Gradients", of *Bewick-Sonntag et al.*;
- 62. United States Patent No. 6,267,842, issued July 31, 2001, entitled "Water-Based Treatment Agent for Tissue Paper and Tissue Paper Treatment Methods", of *Ishikawa et al.*;
- 63. United States Patent No. 6,332,952, issued December 25, 2001, entitled "Tissue With Strikethrough Resistance", of *Hsu et al.*;
- 64. United States Patent No. 6,383,960, issued May 7, 2002, entitled "Layered Absorbent Structure", of *Everett et al.*;
- 65. United States Patent No. 6,403,858, issued June 11, 2002, entitled "Wettable Article", of *Quincy, III et al.*;
- 66. United States Patent No. 6,416,628, issued July 9, 2002, entitled "Method of Producing Dimensionally Stable Paper and Paperboard Products", of *Huang et al.*; and
- 67. United States Patent No. 6,432,267, issued August 13, 2002, entitled "Wet Crepe, Impingement-Air Dry Process for Making Absorbent Sheet", of *Watson*.

Foreign Publications

1. PCT Publication No. WO 00/00698, published January 6, 2000, entitled "Tissue with Strikethrough Resistance", of *Hsu et al.*

Publications

- FUNDAMENTALS OF BARRIER PROPERTIES, Stannett, V.T. et al., Department of Chemical Engineering, North Carolina State University, Raleigh, North Carolina. (undated); and
- 2. SMART MATERIALS FOR LIQUID CONTROL, Non-Wovens World, October-November 1999, Dyrmose-Peterson, pages 95-99.

Respectfully submitted,

New Ferrell

Michael W. Ferrell Attorney for Applicant Reg. No. 31,158

Ferrells, PLLC
P.O. Box 312
Clifton, Virginia 20124-1706
Telephone: 703-968-8600
Facsimile: 703-968-5500
September , 2004

*EXAMINER INITIAL	NFORMATION DISCLOSUR Use several sheets is nece	RE CITATION essary)		2376 (GP-01-2 APPLICANT(S)		APPLICATION I	702,414	
*EXAMINER	SEP 2 9 2004	RE CITATION essary)		APPLICANT(S)				
*EXAMINER	SEP 2 9 2004	essary)		. ,				
1	SEP 3 8 5004 PR			Phuong V. Luu et al.				
1	A SEL T SE			FILING DATE		GROUP ART U	TIV	
1	3/			November 6, 2			1731	
1	P. C.	U.S	S. PATENT	DOCUMENTS			-	
	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DA	
	1,682,346	8/28/28	Lorenz					
	3,432,936	3/18/69	Cole et al.		34	6		
	3,546,716	12/15/70	Laumann		4	112		
	3,607,348	9/21/71	Wray et a	ı.	117	38		
	3,612,054	7/31/68	Matsuda e	et al.	128	287		-
		U.S. PATEN	IT APPLICA	ATION PUBLICATIONS			<u> </u>	
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
		FORE	IGN PATEN	IT DOCUMENTS				
	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	TRANS YES	LATION NO
								-
			-					
			· · · · · · · · · · · · · · · · · · ·					
	OTHER DOCUME	ENTS (Including	g Author,	Title, Date, Pertinent F	Pages, Etc.)			
		-						
EXAMINER				DATE CONSIDERED				
EXAMINER: I	initial if reference considered, wheth	er or not citation is i	in conforma	nce with MPEP 609; Draw	ine through ci	tation if not in co	nformance	and not

Form PTO-A820 (also form PTO-1449)

(Use several sheets if necessary)

ATTY DOCKET NO. 2376 (GP-01-24)	APPLICATION NO. 10/702,414	
Phuong V. Luu et al.		
FILING	GROUP ART	

<u> </u>				November	r 6, 2003		1731	
		U	J.S. PATENT	DOCUMENTS	-			
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DA	
	3,654,064	4/4/72	Laumann	et al.	161	156		110 11 11
	3,994,771	11/30/76	Morgan et	t al.	162	113		
	4,102,737	7/25/78	Morton		162	113		
	4,117,199	9/26/78	Gotoh et a	al.	428	486		
	4,349,610	9/14/82	Parker		428	447		
		U.S. PATE	ENT APPLIC	ATION PUBLICATION	NS		<u></u>	
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
		FOR	EIGN PATEN	NT DOCUMENTS				
	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	TRANS	SLATION
						†	150	INC
			 			-	 	
						 		
				,- ,.				
						-		
	OTHER DOCUM	 MENTS (Includii	ina Author.	Title, Date, Pertin	nent Pages Ftc	<u> </u>		
			,	This, bace, i citi.	1611t 1 agoo, 2.c.,			
								
EXAMINER				DATE CONSIDERED)			
*EXAMINER: considered. !	Initial if reference considered, whe Include copy of this form with next of	ther or not citation is	s in conforma	ance with MPEP 609;	Draw line through ci	tation if not in o	onformance	and not

Form PTO-A820 (also form PTO-1449)

INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)

ATTY DOCKET NO. 2376 (GP-01-24)	APPLICATION NO. 10/702,414	
Phuong V. Luu et al.		
FILING	GROUP ART	

(Use several sheets if nece	∌ssary)		Phuong V. Luu et				
		ı		6. 2003		1731	
	U	J.S. PATENT				1701	
DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DA	
4,468,254	8/28/84	Yokoyam		106	271	IF APPROF	PRIATE
4,529,480	7/16/85	Trokhan		162	109	+	
4,543,156	9/24/85	Cheshire	et al.	162	101		
4,601,938	7/22/86	Deacon et	t al.	428	153		
4,786,367	11/22/88	Bogart et	al.	162	158		
	U.S. PATE	NT APPLIC	ATION PUBLICATIONS	s	<u>L</u>		
DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
						treat reserve	RIATE
						-	
	FORE	EIGN PATE	NT DOCUMENTS				
DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS		SLATION
						YES	NO
		 					
	+					 	
	+						
+	+	 					
OTHER DOCUM	ENTS /Includin	- Author]	<u></u>
	.NIS (IIICIUUIII)	g Autrior,	Title, Date, Pertine	nt Pages, Etc.)			
		ľ	DATE CONSIDERED				
	DOCUMENT NUMBER 4,468,254 4,529,480 4,543,156 4,601,938 4,786,367 DOCUMENT NUMBER DOCUMENT NUMBER	DOCUMENT NUMBER DATE 4,468,254 8/28/84 4,529,480 7/16/85 4,543,156 9/24/85 4,601,938 7/22/86 4,786,367 11/22/88 DOCUMENT NUMBER DATE FORE DOCUMENT NUMBER DATE	U.S. PATENT DOCUMENT NUMBER	DOCUMENT NUMBER DATE NAME	CLASS CLAS	FILING SOUTH SOU	S. PATENT DOCUMENTS 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731 1731

(Use several sheets if necessary)

ATTY DOCKET NO. 2376 (GP-01-24)	APPLICATION NO. 10/702,414	
Phuong V. Luu et al.		
FILING	GROUP ART	

			November 6,		GROUP ART	1731	
		U.	.S. PATENT DOCUMENTS				
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DAT	
	4,789,564	12/6/88	Kanner et al.	427	255.6		TMALE
	4,816,320	3/28/89	St. Cyr	428	198		
	4,950,545	8/21/90	Walter et al.	428	446		
	4,987,632	1/29/91	Rowe et al.	15	104.93		
	5,227,242	7/13/93	Walter et al.	428	446		
		U.S. PATEI	NT APPLICATION PUBLICATIONS		· 		
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DAT	
	-						
		FORE	EIGN PATENT DOCUMENTS				
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS		SLATION
					+	YES	NO
							
-					-		
						 	<u> </u>
				+			
	OTHER DOCUM	MENTS (Includir	Author Title Date Pertiner	- Compa Etc			<u></u>
		IENTO (IIIOIGGII)	ng Author, Title, Date, Pertinen	t Pages, ⊏ω.,	1		
i							
		· · · · · · · · · · · · · · · · · · ·					
							
EXAMINER			DATE CONSIDERED				

Form PTO-A820 (also form PTO-1449)

ATTY DOCKET NO. APPLICATION NO. 2376 (GP-01-24) 10/702,414 INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Phuong V. Luu et al. **FILING GROUP ART** November 6, 2003 1731 **U.S. PATENT DOCUMENTS** *EXAMINER DOCUMENT NUMBER FILING DATE DATE NAME CLASS **SUBCLASS** INITIAL IF APPROPRIATE 5,399,366 3/21/95 Geddes et al. 426 87 5,431,840 7/11/95 Soldanski et al. 252 174.17 5,449,551 9/12/95 Taniguchi 428 288 5,665,426 9/9/97 Krzysik et al. 427 211 5,690,788 11/25/97 Marinack et al. 162 113 **U.S. PATENT APPLICATION PUBLICATIONS** *EXAMINER DOCUMENT NUMBER FILING DATE DATE NAME CLASS **SUBCLASS** INITIAL IF APPROPRIATE **FOREIGN PATENT DOCUMENTS** DOCUMENT NUMBER DATE COUNTRY TRANSLATION CLASS **SUBCLASS** YES NO PCT Pub. No. WO 00/00698 1/6/20 **PCT** D21H 27/38

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

FUNDAMENTALS OF BARRIER PROPERTIES, Stannett, V.T. et al., Department of Chemical Engineering, North Carolina State University, Raleigh, North Carolina. (undated); and SMART MATERIALS FOR LIQUID CONTROL, Non-Wovens World, October-November 1999, Dyrmose-Peterson, pages 95-99

EXAMINER DATE CONSIDERED

ATTY DOCKET NO. APPLICATION NO. 2376 (GP-01-24) 10/702,414 INFORMATION DISCLOSURE CITATION APPLICANT(S) (Use several sheets if necessary) Phuong V. Luu et al. FILING DATE **GROUP ART UNIT** November 6, 2003 1731 **U.S. PATENT DOCUMENTS** *EXAMINER DOCUMENT NUMBER FILING DATE DATE NAME CLASS SUBCLASS INITIAL IF APPROPRIATE 5,695,487 12/9/97 Cohen et al. 604 384 5,716,692 2/10/98 Warner et al. 428 153

5,792,404 8/11/98 Cree et al. 264 134 5,849,000 12/15/98 Anjur et al. 604 367 5,851,352 12/22/98 Vinson et al. 162 112 **U.S. PATENT APPLICATION PUBLICATIONS** *EXAMINER DOCUMENT NUMBER DATE FILING DATE NAME CLASS SUBCLASS INITIAL IF APPROPRIATE

FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE TRANSLATION COUNTRY CLASS SUBCLASS YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) **EXAMINER**

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE CONSIDERED

(Use several sheets if necessary)

ATTY DOCKET NO.	APPLICATION NO.
2376 (GP-01-24)	10/702,414
Dhuang V I un at al	
Phuong V. Luu et al.	

					November 6, 20	03		1731	
			U.S	S. PATENT	DOCUMENTS				
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
		5,851,353	12/22/98	Fiscus et a	ıl.	162	113		
		5,855,697	1/5/99	Luo et al.		148	420		-
		5,858,173	1/12/99	Propst, Jr		162	164.1		·
		5,865,955	2/2/99	Ilvespaa e	t al.	162	207		
		5,891,309	4/6/;99	Page et al.		162	281	· ······	<u> </u>
			U.S. PATEN	IT APPLICA	ATION PUBLICATIONS		<u> </u>	<u> </u>	
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
							-		
								μ	***
			FORE	IGN PATEN	NT DOCUMENTS				.,
		DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	TRANS	LATION NO
								120	NO
									· · · · · · · · · · · · · · · · · · ·
					·		·		
 		OTHER DOCUMEN	ITS (Including	g Author,	Title, Date, Pertinent P	Pages, Etc.)			
						· · · · · ·	-	 ·	
· · · · · · · · · · · · · · · · · · ·								 ;	
EXAMINER				- ·	DATE CONSIDERED	-		-	
*EXAMINER	R: Initia	al if reference considered, whether	r or not citation is	in conforms	ance with MDED 600: Decuri	ing through all-	ation if not in a	nfor	
considered	lactuo	te cany of this form with novt com	to to to to		THAN I	me unough cita	anou it not in co	ormance	and not

Form PTO-A820 (also form PTO-1449)

(Use several sheets if necessary)

10/702,414
10//02/717
GROUP ART

			November 6,			1731	
<u> </u>	U.!	S. PATENT	DOCUMENTS				
DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
5,932,316	8/3/99	Cree et al	l.	428	182		
5,968,590	10/19/99	Ahonen e	t al.	427	209		
6,001,421	12/14/99	Ahonen e	tal.	427	316		
6,015,935	1/18/00	LaVon et	al.	604	378		
6,025,049	2/15/00	Ouellette	et al.	428	131		
	U.S. PATEN	NT APPLIC	ATION PUBLICATIONS	-			
DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
							10.112
		-					
	FORE	IGN PATE	NT DOCUMENTS		<u>, I </u>	1	
DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS		LATION NO
						120	
OTHER DOCUME	NTS (Includin	L g Author,	Title, Date, Pertiner	l nt Pages, Etc.)			
ļ							
			DATE CONSIDERED		· · · · · · · · · · · · · · · · · · ·		
	5,932,316 5,968,590 6,001,421 6,015,935 6,025,049 DOCUMENT NUMBER	DOCUMENT NUMBER 5,932,316 8/3/99 5,968,590 10/19/99 6,001,421 12/14/99 6,015,935 1/18/00 U.S. PATEN DOCUMENT NUMBER DATE FORE DOCUMENT NUMBER DATE	DOCUMENT NUMBER DATE	DOCUMENT NUMBER DATE NAME	November 6, 2003	DOCUMENT NUMBER DATE NAME CLASS SUBCLASS	November 6, 2003 1731

Form PTO-A820 (also form PTO-1449) Copyright 1994-97 LegalStar

P09C/REV04

(Use several sheets if necessary)

ATTY DOCKET NO. 2376 (GP-01-24)	APPLICATION NO. 10/702,414
Phuong V. Luu et al.	

						November 6, 20		31.001 AI(1	1731	
U.S. PATENT DOCUMENTS										
*EXAMINER			DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
		6,027	/,611 	2/22/00	McFarlan	d et al.	162	127		
		6,033	3,736	3/7/00	Perlman e	et al.	427	384		
		6,046	3,378	4/4/00	Quincy, I	II et al.	604	375		
		6,054	1,020	4/25/00	Goulet et	al.	162	112		
		6,066	i,379	5/23/00	Ma et al.		428	53		
				U.S. PATEN	IT APPLICA	ATION PUBLICATIONS				
*EXAMINER INITIAL			DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
				FORE	IGN PATE	NT DOCUMENTS				
		!	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS		LATION
								-	YES	NO
-							†			
12							<u>-</u>			
			.,,				<u> </u>			
	<u> </u>	1	OTHER DOCUME	NTS (Includin	g Author,	Title, Date, Pertinent	Pages, Etc.)		<u></u>
			-		-					
•					<u>.</u>				· · · · · · · · · · · · · · · · · · ·	
EXAMINE	R					DATE CONSIDERED		<u> </u>		-
*EXAMINE	*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.									

Form PTO-A820 (also form PTO-1449)

Copyright 1994 LegalStar

P09C/REV04

ATTY DOCKET NO. APPLICATION NO. 2376 (GP-01-24) 10/702,414 INFORMATION DISCLOSURE CITATION Phuong V. Luu et al. (Use several sheets if necessary) FILING **GROUP ART** November 6, 2003 1731 **U.S. PATENT DOCUMENTS** *EXAMINER DOCUMENT NUMBER FILING DATE DATE NAME CLASS SUBCLASS INITIAL IF APPROPRIATE 6,074,525 6/13/00 Richards 162 100 8/22/00 6,107,539 Palumbo et al. 604 378 6,119,362 9/19/0 Sundqvist 34 120 6,180,052 1/30/01 Ouellette et al. 264 504 6,187,695 2/13/01 Krzysik et al. 442 62 U.S. PATENT APPLICATION PUBLICATIONS *EXAMINER DOCUMENT NUMBER DATE FILING DATE NAME CLASS SUBCLASS INITIAL IF APPROPRIATE **FOREIGN PATENT DOCUMENTS** DOCUMENT NUMBER DATE TRANSLATION COUNTRY CLASS SUBCLASS YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

DATE CONSIDERED

ATTY DOCKET NO. APPLICATION NO. 2376 (GP-01-24) 10/702,414 INFORMATION DISCLOSURE CITATION APPLICANT(S) (Use several sheets if necessary) Phuong V. Luu et al. FILING DATE **GROUP ART UNIT** November 6, 2003 1731 **U.S. PATENT DOCUMENTS** *EXAMINER DOCUMENT NUMBER DATE FILING DATE NAME CLASS SUBCLASS INITIAL IF APPROPRIATE 6,267,842 7/31/01 Ishikawa et al. 162 135 6,231,948 Ouellette et al. 5/15/01 428 131 6,232,521 5/15/01 Bewick-Sonntag et al. 604 378 6,332,952 12/25/01 Hsu et al. 162 127 6,383,960 5/7/02 Everett et al. 442 394 **U.S. PATENT APPLICATION PUBLICATIONS** *EXAMINER DOCUMENT NUMBER DATE NAME FILING DATE CLASS SUBCLASS INITIAL IF APPROPRIATE FOREIGN RATENT ROOM

FOREIGN PATENT DOCUMENTS									
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	SLATION		
		 				YES	NO		
					<u> </u>				
				 	 				
				-	 	 			
		1			ļ,				
ĺ	OTHER DOCUMENTO (In all III al								

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

DATE CONSIDERED

(Use several sheets if necessary)

ATTY DOCKET NO. 2376 (GP-01-24)	APPLICATION NO. 10/702,414
Phuong V. Luu et al.	
FILING November 6, 2002	GROUP ART

November 6, 2003			2004/97	Finding V. Luu (
NAME CLASS SUBCLASS PERO DATE PEROPORIATE NAME CLASS SUBCLASS PERO DATE PEROPORIATE NAME CLASS SUBCLASS PERO DATE PEROPORIATE NAME CLASS SUBCLASS PERO DATE PEROPORIATE PEROPO				FILING Novembe	r 6, 2003	GROUP ART	1731	
NAME DOCUMENT NUMBER DATE MAME CLASS SUBCLASS PLINEG DATE	45VAA41155		U	S. PATENT DOCUMENTS	•			
Miles	INITIAL		DATE	NAME	CLASS	SUBCLASS		
			6/11/02	Quincy, III et al.	604	375	II ACCOM	JERIATE
MINER DOCUMENT (Including Author, Title, Date, Pertinent Pages, Etc.) U.S. PATENT APPLICATION PUBLICATIONS FRING DATE IN AMME CLASS SUBCLASS FIRING DATE IF APPROPRIATE APPROPRIATE FOREIGN PATENT DOCUMENTS U.S. PATENT DOCUMENTS FOREIGN PATENT DOCUMENTS U.S. PATEN		6,416,628	7/9/02	Huang et al.	162	180		
MAMIRE DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE THE PROPERTY OF THE PATENT DOCUMENTS FOR DATE CONSIDERED DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE FOR DATE CONSIDERED FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING		6,432,267	8/13/02	Watson	162	111	† 	
MAMIRE DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE THE PROPERTY OF THE PATENT DOCUMENTS FOR DATE CONSIDERED DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE FOR DATE CONSIDERED FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING DATE FILING		+	 					
MAMINER DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE TITLE DOCUMENT NUMBER DATE FOR DATE FOR DATE FOR DATE FOR DATE COUNTRY CLASS SUBCLASS FILING DATE TRANSLATION TRANSLA			II S DATE	NT APPLICATION PURPLE				
FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO	EXAMINER	DOCUMENT AND ADDRESS OF THE PROPERTY ADDRE		T APPLICATION PUBLICATION	IS			
DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO NO NO NO NO NO NO NO NO N	INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS		
DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO YES NO OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) MINER DATE CONSIDERED			-					
DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO YES NO TOTAL			 					
DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO YES NO OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) MINER DATE CONSIDERED		 						
DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO YES NO OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) MINER DATE CONSIDERED			FORE	ICN DATENT DOGUMENT				
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) DATE CONSIDERED DATE CONSIDERED				THE PATENT DOCUMENTS				
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) MINER DATE CONSIDERED		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS		
MINER Date, Pertinent Pages, Etc.) DATE CONSIDERED						!		
MINER Date, Pertinent Pages, Etc.) DATE CONSIDERED								
MINER Date, Pertinent Pages, Etc.) DATE CONSIDERED								
MINER Date, Pertinent Pages, Etc.) DATE CONSIDERED					_			
MINER Date, Pertinent Pages, Etc.) DATE CONSIDERED		OTHER DOCUME	NTS (Including	Author Title				
DATE CONSIDERED			···· (including	Author, Title, Date, Pertine	nt Pages, Etc.)			
DATE CONSIDERED								
DATE CONSIDERED								
DATE CONSIDERED								
	AMINER			DATE CONSIDERED				
	AMINER: Initia	I if reference considered, whether	or not citati	i				

ATTY DOCKET NO. 2376 (GP-01-24)	APPLICATION NO. 10/702,414
Phuong V. Luu et al.	
FILING	GROUP ART

	(Use several sheets if nece	essary)		Phuong V. Luu et a				
				FILING November 6	6, 2003	ROUP ART	1731	
		U. !	S. PATENT	T DOCUMENTS				
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
	5,510,002	4/23/96	Hermans	et al.	162	113	IF ALLINE.	KIATE
	5,552,187	9/3/96	Green et a	al.	427	389.8		
	5,650,945	10/1/96	Geddes et	t al.	426	87		
	5,585,129	12/17/96	Geddes et	t al.	426	394		
	5,601,871	2/11/97	Krzysik et	et al.	427	288		
		U.S. PATEN	NT APPLIC	ATION PUBLICATIONS		L	<u></u>	
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
								1000
· 		FORE	IGN PATE	NT DOCUMENTS				
	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	TRANSI YES	SLATION NO
							120	
	OTHER DOCUME	ENTS (Including	g Author,	Title, Date, Pertiner	nt Pages, Etc.)			
					•			
		_						
EXAMINER				DATE CONSIDERED				-

ATTY DOCKET NO. APPLICATION NO. 2376 (GP-01-24) 10/702,414 INFORMATION DISCLOSURE CITATION Phuong V. Luu et al. (Use several sheets if necessary) FILING **GROUP ART** November 6, 2003 1731 **U.S. PATENT DOCUMENTS** *EXAMINER FILING DATE DOCUMENT NUMBER DATE NAME CLASS SUBCLASS INITIAL IF APPROPRIATE 5,609,901 3/11/97 Geddes et al. 426 394 5,614,293 3/25/97 Krzysik et al. 428 222 5,650,218 7/22/97 Krzysik et al. 428 195 5,658,639 8/19/97 Curro et al. 428 131 **U.S. PATENT APPLICATION PUBLICATIONS** *EXAMINER FILING DATE DOCUMENT NUMBER DATE NAME CLASS SUBCLASS INITIAL IF APPROPRIATE S

	FORE	IGN PATENT DOCUMENT

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	LATION
					00202.00	ASS TRANSLAT YES	NO
					١		
				7.			
							i

		OTHER DOCUMENTS	(Including Author, Title, Date, Pertinent F	Pages, Etc.)	
		· · · · · · · · · · · · · · · · · · ·			
			·		
	Щ				
EXAMINER			DATE CONSIDERED		

CERTIFICATE OF Applicant(s): Phuong	Docket No. 2376 (GP-01-24)							
Application No. Filing Date Examiner Customer No. Group Art Unit 10/702,414 November 6, 2003 UNKNOWN 40256 1731								
Invention: ABSORBE	NT SHEET EXHIBITIN	G RESISTANCE TO MOISTURE PEN	ETRATION					
			-					
I hereby certify that t	his IDS w/references, I	PTO-1449 & return postcard (Identify type of correspondence)						
		stal Service with sufficient postage as O. Box 1450, Alexandria, VA 22313-14		·				
S	eptember , 2004	_ ·	100 [37 OFK 1.0	(a)] U II				
		Carol R. M (Typed or Printed Name of Perso		lence)				
		(Signature of Person Mail	Mudda ing Correspondence)	ln				
	Note: Each pa	per must have its own certificate of mailing.						